

Central Valley Project Improvement Act

Section 3406 (b)21

Anadromous Fish Screen Program

Anadromous Fish Screen Program Team

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Anadromous Fish Screen Program Interagency Technical Team

- Paul Raquel Department of Fish and Game
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- Roger Padilla Department of Water Resources
- Bill Dutton Bureau of Reclamation
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Central Valley Project Improvement Act

Section 3406 (b)(21)

- Assist the State of California in efforts to implement measures to avoid losses of juvenile anadromous fish;
- Measures include construction, rehabilitation, and replacement of fish screens and relocation of diversions to less fishery sensitive areas;
- Federal cost share shall not exceed 50 % of the total cost of any such activity. Program active since 1994.

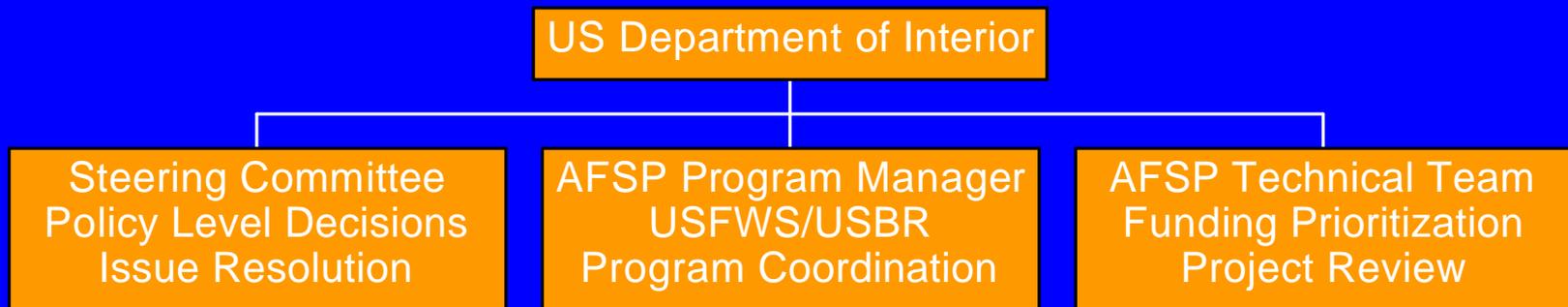
Anadromous Fish Screen Program Update

- 2,100 agricultural diversions in the Delta;
- 450 diversions in the Sacramento River system;
- 150 diversions within the San Joaquin River system;
- 370 diversions in the Suisun Marsh basin;
- NMFS estimates 10,000,000 anadromous fry lost annually to diversions from Sacramento River system alone.

Anadromous Fish Screen Projects Update

- Approximately 30 grants have been executed to date;
- Since 1994, 18 screening projects completed;
- 2 projects scheduled for completion in 2003;
- 3 large fish screen projects are likely to be constructed by 2005 (Natomas Mutual Water Company, Sutter Mutual Water Company, RD108)

Anadromous Fish Screen Program



Anadromous Fish Screen Program Accomplishments FY 02-03

- BCID – 250 cfs on San Joaquin River
- City of Sacramento –245 cfs on Sacramento River,
210 cfs on American River (construction ongoing)
- Ducks Unlimited – Lower Butte Creek Weir 3
(construction ongoing)

AFSP 2003 Restoration Fund Priorities

• PCG/PID	\$125,000
• Sutter Mutual	\$756,031
• RD108	\$487,540
• Natomas Mutual	\$821,120
• Meridian Farms	\$256,600
• Pleasant Grove/Verona	\$384,900
• City Sacramento	\$252,943
• RD2035	\$705,650
Total	\$3,789,784

**ANADROMOUS FISH SCREEN PROGRAM
COMPLETED PROJECTS - SUMMARY**

24-Sep-02

PROJECT NAME	LOCATION	TOTAL COSTS	FEDERAL SHARE (Non-CALFED)	Prop 204 State Funds	STATUS
Maxwell ID	Sacramento River 17 mi East of Maxwell	\$1,545,000	\$709,214	\$709,214	Completed
Pelger Mutual Water Company	Sacramento River RMile 111.7	\$278,000	\$139,188	\$139,188	Completed
Wilson Ranch	Sacramento River near Hamilton City RMile 203	\$231,000	\$90,000	--	Completed
* Suisun Resource Conservation District (5 screen projects)	Suisun Marsh	\$900,000	\$621,000	--	Completed
Parrott-Phelan Irrigation Systems (M&T Ranch)	Sacramento River RMile 192.6	\$4,584,000	\$2,200,000	--	Completed
Reclamation District 1004	Sacramento River near Princeton RMile 164	\$7,250,000	\$1,535,000	\$3,825,000	** Constructed
Reclamation District 108	Sacramento River near Grimes RMile 118	\$12,051,037	\$6,101,037	\$3,825,000	** Constructed
Rancho Esquon Partners (Adams Ranch)	Butte Creek	\$1,089,625	\$544,812	\$207,620	** Constructed
Princeton-Codora Glenn/Prov ID	Sacramento River	\$10,957,887	\$5,350,000	--	**Constructed
Gorrill Land Company	Butte Creek	\$1,515,959	\$755,948	\$268,318	Completed
Western Canal Water District	Butte Creek	\$9,067,620	\$3,022,540	--	Completed
Dayly Lee	Steamboat Slough	\$38,165	0	\$38,165	Completed
Brown's Valley ID	Yuba River	\$298,287	\$107,037	--	Completed
Banta Carbona	San Joaquin River	\$9,800,000	\$3,876,750	\$4,431,000	Completed

TOTAL (Rounded):	\$59,606,580	\$25,052,526	\$13,443,505
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ANADROMOUS FISH SCREEN PROGRAM
ONGOING PROJECTS - SUMMARY

24-Sep-02

PROJECT NAME	LOCATION	TOTAL ESTIMATED COSTS	ESTIMATED FEDERAL SHARE	FUNDS TO BE OBLIGATED IN FY 2003	STATUS
RD 2035	Sacramento River	\$10,000,000	\$5,000,000	\$705,650	Design
Natomas Mutual Water Co.	Sacramento River	\$22,800,000	\$11,000,000	\$821,120	Design
City of Sacramento	Amer/Sac River	\$44,000,000	\$14,000,000	\$252,943	Construction
Meridian Fams	Sacramento River	\$2,300,000	\$1,150,000	\$256,600	Design
Pleasant Grove/Verona	Sacramento River Natomas Cross Channel	\$6,600,000	\$3,000,000	\$384,900	Design
Reclamation District 108 Consolidation	Sacramento River near Grimes	\$5,000,000	\$7,500,000	\$487,540	Design
Sutter Mutual Water Company	Sacramento River	\$22,000,000	\$11,000,000	\$756,031	Design

ONGOING PROJECTS TOTAL:	\$112,700,000	\$52,650,000	\$3,664,784
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COMPLETED PROJECTS TOTAL:	59,606,580	25,052,526
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ESTIMATED PROGRAM TOTAL (rounded) :	\$172,310,000	\$77,703,000
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* Costs are for Pre-Design (Feasibility) only

Fish Screening Summary

- Total diversions screened with AFSP cost shared funding equals about 3,500 cfs in the Delta, Sacramento River system, and San Joaquin River system combined;
- An additional 465 cfs will be screened in FY 03;
- By end of FY 05, another 2215 cfs will be screened.
- Approximately 70% of all diversions over 250 cfs are now screened

Benefits of Continued Screening of Diversions

- Screen installation removes legal burden of taking ESA listed fish;
- Screens compliment other habitat restoration;
- Screens give an indication that increased fish production from other upstream restoration projects are not in vain;
- Steelhead occur, often year round, in streams and are subject to entrainment continuously during the diversion season; fall-run and winter-run Chinook salmon outmigration also occurs primarily during the typical diversion season and are subject to entrainment;
- Screens are effective in keeping more than listed fish in streams. Other fish, aquatic animals, and macroinvertebrates of importance to ecosystem are also saved;
- Fulfills CVPIA Section 3406(b)21 requirements

Conclusions

- We have obligations to avoid losses/protect listed and targeted anadromous fish and reduce take;
- We believe in screening large diversions since they obviously entrain many fish;
- Maybe all unscreened diversions are not equal, and not all can be screened;
- We should continue cost share funding for the larger diversions in general and the smaller diversions on important spawning tributaries;

Unscreened diversion losses should perhaps be better estimated and a prioritization scheme developed that takes into consideration and contribution of the diversion to the cumulative loss of fishes to the system and the impact of this contribution on fish populations. Such an evaluation could help determine priorities for future funding.